

received from officials and growers in all parts of the world was due in no small measure to his enthusiasm and charm. But there are other interests that claim some attention: the first airplane flights of Glenn Curtiss and the Wrights that Fairchild witnessed with his father-in-law, Alexander Graham Bell; experiences in making enlarged photographs of insects (Monsters of our Back Yard) with a camera twenty five feet long; the development of the Journal of Heredity. Over 200 photographs, mostly of plants and their cultivation taken in many parts of the world by the author, add interest and beauty to the book.

Diatomaceae of Porto Rico*

JOSEPH F. BURKE

This report, issued as a part of the Scientific Survey of Porto Rico and the Virgin Islands, is an important contribution to the literature on North American diatoms. The work of the author was greatly facilitated by the personal possession of a nearly complete library on the diatoms and by the ownership of a collection of about 17,000 diatom slides. Thus equipped as few students have the good fortune to be, and with a broad experience in the critical use of the microscope, it was particularly fortunate that the late Dr. Nathaniel L. Britton invited him to undertake this part of the Survey.

In the Introduction he writes that nearly three hundred collections were made during the years 1926, 1928, and 1929. The cleaning and subsequent treatment of these collections were handled personally by Mr. Hagelstein with equipment used for that purpose only, a detail very important in the regional study of diatoms to avoid contaminations; it shows the thoroughness with which the research was carried on.

A summary is given of previous work, by others, in the area covered by the Survey. The richness of the flora is commented on, with attention called to the interesting flora of the thermal springs near Coamo and Ponce. Species usually considered marine or brackish-water forms were found in apparently fresh water. This feature is discussed. A number of plankton gather-

* The Diatomaceae of Porto Rico and the Virgin Islands. Robert Hagelstein. Scientific Survey of Porto Rico and the Virgin Islands, Volume VIII, Part 3. New York Academy of Sciences. 1939. 138 pp., 7 pl. \$2.00.

ings were made and it was found that a planktonic flora of some extent existed.

The taxonomic arrangement is a strictly alphabetical one, by genera and by species. Eighty-four genera are included; species and varieties number over nine hundred. This is the most extensive publication on North American Diatoms since the monographic work of Charles S. Boyer, "Synopsis of North American Diatomaceae," published in 1927. It is an important supplement thereto, adding many new records to the North American flora. In naming new species and varieties the author has been moderate, an attitude which will benefit all who study this difficult group.

A feature of the report is the thoroughness with which the Bibliography is compiled. In this work Mr. Hagelstein had the active co-operation of an outstanding authority, Dr. John Hendley Barnhart, of the New York Botanical Garden. Citations are taken directly from the original papers, thus errors that may have arisen in the printed citations of other authors are avoided. In giving the full names of the authors and the years of birth and death, except in a few instances, the bibliography becomes an important source of reference to diatom students everywhere. Even those not primarily interested in the area dealt with in the report, will find this section of the utmost value.

In recent times there has been a distinct trend toward illustration of diatom reports by photomicrographs. When accurately executed, a drawing leaves little to be desired. A good photomicrograph is preferable to a poor drawing for it retains the general character of the diatom. Depth is lost with increased magnification and resolving power, but usually a plane can be selected that will show the more important characters. Many of the forms figured in this report are very difficult to photograph. The figure of *Pleurosigma portoricense* Hagelstein, beautifully resolved into puncta, should act as a fresh incentive to ardent microscopists who seek to try their skill against the diatoms most difficult to resolve.

Mr. Hagelstein has chosen to illustrate, in addition to the new species and varieties he has named, those forms of other authors which have been inadequately figured or where the figures appear in publications inaccessible to the general stu-

dent. The process by which the plates are reproduced is full-tone collotype, making it possible to examine with a magnifying glass the finer structure caught by the camera but not at once evident to the unaided eye.

Edible Wild Plants*

G. T. HASTINGS

David Fairchild, in concluding his book *The World Was My Garden*, says "anyone who will sincerely try can learn to enjoy almost any food." While he was journeying around the world sampling the foods of all peoples, Oliver Medsger has been roaming meadows and woods plains and mountains sampling the native plants that have been or can be used for food. And he has found them good and still adds to his enjoyment of outdoor life by the wild foods he finds. The book in which he records his own experiences as well as information he has gathered regarding the food plants used by the Indians, early settlers, hunters and campers is divided into sections,—wild fruits, nuts, seeds and seed pods, salad plants, roots and tubers, beverage and flavoring plants, sugars and gums. In each section plants from all parts of the United States are described as to their characteristics, the parts used and how they are best prepared. The many personal comments on the plants give the book a pleasantly informal and friendly flavor. But the book impresses one by its completeness and accuracy. The author has consulted Sturtevant's *Notes on Edible Plants* and other works in order to make sure no useful plants are omitted, but the book is entirely Medsger's. Possibly it is an error to speak of the Hog Peanut as a perennial, though it is so described in the standard manuals, as in the region about New York the plant is certainly an annual, growing almost always from the single-seeded, underground fruit described in the book. At the end there is a unique "finding index" in which plants are listed under regional headings,—North Eastern United States, Southern United States, Mississippi to the Rockies, Rockies to the Pacific Coast,—under each of the headings plants are listed as to the parts used for food and for each plant the common and

* *Edible Wild Plants*. Oliver Perry Medsger. The Macmillan Co. 1939. 323 pages, 16 plates. \$3.50.